

IN THE CLAIMS:

Please cancel Claims 32 and 33 without prejudice to or waiver of the subject matter contained therein.

Please amend Claims 22, 23, 28, 31, and 34 as follows. All claims in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

Claims 1-9 (Cancelled)

10. (Previously Presented) The linear motor according to claim 22, wherein said metal film is formed of a nonmagnetic material.

11. (Original) The linear motor according to claim 10, wherein said metal film contains nickel.

12. (Previously Presented) The linear motor according to claim 22, wherein said metal film contains gold.

13. (Original) The linear motor according to claim 10, wherein said metal film has a thickness of 10 μm to 30 μm .

14. (Previously Presented) The linear motor according claim 22, wherein said metal film is formed by plating.

15. (Previously Presented) The linear motor according to claim 22, wherein said metal film has been subjected to mirror polishing.

16. (Previously Presented) The linear motor according to claim 22, wherein said metal film is grounded.

17. (Previously Presented) A stage apparatus comprising:
the linear motor according to claim 22; and
a movable stage integrally formed with said movable element of the linear motor.

18. (Previously Presented) A stage apparatus comprising:
the linear motor according to claim 22;
a stage moved by the linear motor;
a chamber surrounding and hermetically sealing said stage; and
a vacuum mechanism for evacuating said chamber.

19. (Original) An exposure apparatus comprising the stage apparatus according to claim 18.

20. (Original) The exposure apparatus according to claim 19, wherein the exposure apparatus is an electron beam exposure apparatus.

21. (Withdrawn) A device manufacturing method comprising:
preparing the exposure apparatus according to claim 19;
applying a photosensitive agent to a substrate;
exposing the substrate by using the exposure apparatus; and
developing the exposed substrate.

22. (Currently Amended) A linear motor comprising:
a coil;
a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil; and
a metal film ~~arranged in~~ provided at least at a surface of a portion between said coil and said magnet which faces said coil.

23. (Currently Amended) A linear motor comprising:
a coil;
a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil;
a jacket covering said coil and forming a flow path through which a refrigerant flows; and

a metal film ~~The linear motor according to claim 22, wherein said coil is covered with a jacket forming a flow path through which a refrigerant flows, and said metal film is provided at least at a surface of said jacket which faces said magnet.~~

24. (Previously Presented) The linear motor according to claim 23, wherein said metal film comprises one of nickel and gold, and a surface of said metal film is subjected to mirror polishing.

25. (Previously Presented) The linear motor according to claim 23, wherein said coil is supported by a yoke through said jacket.

26. (Previously Presented) The linear motor according to claim 22, wherein said metal film is provided at least at one of a stator and a movable element, said stator comprising said coil and said movable element comprising said magnet.

27. (Previously Presented) The linear motor according to claim 26, wherein said movable element comprises a support member supporting said magnet and said metal film is provided at least at a portion of said support member which faces said coil.

28. (Currently Amended) A linear motor comprising:
a coil;

a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil; ~~The linear motor according to claim 26,~~
~~wherein said movable element comprises~~

a support member supporting said magnet; and said

a metal film is provided at least at one of a side of said support member which faces said coil and a side of said support member which does not face said coil.

29. (Previously Presented) The linear motor according to claim 26, wherein said stator comprises a jacket forming a flow path through which a refrigerant flows and said coil is covered with said jacket.

30. (Previously Presented) The linear motor according to claim 29, wherein said metal film is provided at a surface of said jacket.

31. (Previously Presented) A linear motor comprising:
a stator including a coil and a jacket, said jacket being arranged to cover said coil and to form a flow path through which a refrigerant flows;

a movable element comprising a magnet, said movable element moving by flowing a current to said coil; and

a metal film provided at least at a surface of said jacket, ~~The linear motor according to claim 30,~~ wherein said metal film comprises one of nickel and gold, and a surface of said metal film is subjected to mirror polishing.

Claims 32 and 33 (Cancelled).

34. (New) A linear motor comprising:

a coil;

a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil;

a support member supporting said magnet;

a metal surface subjected to mirror polishing and arranged in at least a portion between said coil and said support member; and ~~The linear motor according to claim 32, further comprising~~ a yoke supporting said coil, said metal surface being provided at said yoke.

Please add Claims 35-45 as follows:

--35. (New) The linear motor according to claim 23, wherein said metal film is formed of a nonmagnetic material.

36. (New) The linear motor according to claim 35, wherein said metal film contains nickel.

37. (New) The linear motor according to claim 23, wherein said metal film contains gold.

38. (New) The linear motor according to claim 23, wherein said metal film has a thickness of 10 μm to 30 μm .

39. (New) The linear motor according to claim 23, wherein said metal film is formed by plating.

40. (New) The linear motor according to claim 23, wherein said metal film has been subjected to mirror polishing.

41. (New) The linear motor according to claim 23, wherein said metal film is grounded.

42. (New) A stage apparatus comprising:
the linear motor according to claim 23; and
a movable stage integrally formed with said movable element of the linear motor.

43. (New) A stage apparatus comprising:
the linear motor according to claim 23;
a stage moved by the linear motor;
a chamber surrounding and hermetically sealing said stage; and
a vacuum mechanism for evacuating said chamber.

44. (New) An exposure apparatus comprising the stage apparatus according to claim 43.

45. (New) The exposure apparatus according to claim 44, wherein the exposure apparatus is an electron beam exposure apparatus.--